

REQUEST

For receiving Office	e use only
International Application No.	
International Filing Date	
Name of receiving Office and "PCT Inter Applicant's or agent's file reference	national Application"
Applicants of agents the reference	900003 2003 WA

	International Filing Date				
		·			
The undersigned requests that the present	Name of receiving Office and "DCT Intimational Adultantian"				
international application be processed	Name of receiving Office and "PCT International Application"				
according to the Patent Cooperation Treaty	Applicant's or agent's file reference (if desired)(12 characters maximum) 890003-2003.WO				
Box No. I TITLE OF INVENTION	(y uesneu) 12 chinatei	3 mataman) 0,0003-2003: 11 O			
HOMOLOGOUS RECOMBINATION IN MU	LTIPOTENT ADU	LT PROGENITOR CELLS			
Box No. II APPLICANT					
Name and address: (Family name followed by given name; for a legal entity, full offici must bichude postal code and name of country. The country of the address indicated it State (that is, country) of residence if no State of residence is indicated below.)	Telephone No.				
REGENTS OF THE UNIVERSITY OF MINNE	Facsimile No.				
110 Washington Avenue South Minneapolis, MN 55455					
United States of America		Teleprinter No.			
		Applicant's Registration No. with the Office			
State (that is, country) of nationality:	State (that is, country) of	residence:			
US		US			
This person is applicant all designated states all designated states ender the purposes of: America	xcept the United States of	the United States of the states indicated in the Supplemental Box			
Box No. III FURTHER APPLICANT(S) AND/OR (FURTHE	R) INVENTOR(S)				
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is:					
VERFAILLIE, Catherine		applicant only			
585 Cretin Avenue South		·			
St. Paul, MN 55116		applicant and inventor			
United States of America		inventor only (if this check-box			
		is marked, do not fill in below.)			
	•	Applicant's registration No. with the Office:			
•		3			
State (that is, country) of nationality:	State (that is, country) o	fresidence:			
US	US				
for the purposes of states of America	xcept the United States	X the United States the states indicated in of America only the Supplemental Box			
Further applicants and/or (further) inventors are indicated on a		ed April 1992 in the State of t			
Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE					
The person identified below is herebythas been appointed to act on behalf of the applicant(s) before the competent international Authorities as:	agent	common representative			
Name and address: (Family name followed by given name; for a legal entity, full office the address must include postal code and name of country.)	Telephone No. (212) 588-0800				
LAWRENCE, William F.					
LEAHY, Amy Frommer Lawrence & Haug LLP	Facsimile No. (212) 588-0500				
745 Fifth Avenue					
New York, New York 10151	Teléprinter No.				
United States of America	Agent's registration No. with the Office				
		28,029 and 47,739			
Address for correspondence: Mark this check-box where no a	gent or common represent	ative is/has been appointed and the space above is			

Form PCT/RO/101 (first sheet)(March 2001; reprint July 2003)

See Notes to the request fo

Sheet No. 3

Box No. V DESIGNATION OF STATES								
The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):								
						•		<i>p</i>
Regional Patent ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZM Zambia, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT (st other kind of protection or treatment desired, specify on desteed line)								
×	EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT							
⊠	EP European Patent: AT Austria, BE Belgium, BG Bulgaria, CH & LI Switzerland and Liechtenstein, CY Cyprus, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, HU Hungary, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, RO Romania, SE Sweden, SL Slovenia, SK Slovakia, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT							
OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GQ Equatorial Guinea, GW Guinea -Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other third of protection or treatment desired, specify on dotted line)								
Na	tional F	atent (if other kind of protection or tre	atment de	esired	l, specify on dotted line).			
\boxtimes	AE	United Arab Emirates	\boxtimes	GH	Ghana	\boxtimes	NZ	New Zealand
\boxtimes	AG	Antigua and Barbuda	\boxtimes	GM	Gambia	\boxtimes	OM	Omen
Ø	AL	Albania	\boxtimes	HR	Croatia	\boxtimes	PG	Papua New Guinea
\boxtimes	AM	l Armenia	\boxtimes	HU	Hungary	\boxtimes	PH	Philippines
\boxtimes	AT	Austria	\boxtimes	ID	Indonesia	\boxtimes	PL	Poland
Ø	AU	Australia	\boxtimes	IL.	Israel	\boxtimes	PT	Portugal
Ø	.AZ			IN	India	\boxtimes	RO	Romania
\boxtimes	BA	Bosnia and Herzegovina	\boxtimes	IS	Iceland	\boxtimes	RU	Russian Federation
\boxtimes	ВВ		-	JP	Japan:			
·Ø	BG	Bulgaria	×	KE	Kenya	\boxtimes	sc	Seychelles
\boxtimes	BR			KG	Kyrgyzstan	×	SD	Sudan
Ø	ви			KP	Democratic People's Republic	\boxtimes	SE	Sweden
Ø	BY		•		of Korea	×	SG	Singapore
Ø	BZ		\boxtimes	KR	Republic of Korea	$\overline{\boxtimes}$	SK	Slovakia
×		Canada	-	KZ	Kazakhstan	Ø	SL	Sierra Leone
Ø		& LI Switzerland and Liechtenstein		LC	Saint Lucia	⊠	SY	Syria Arab Republic
Ø	CN		100	LK	Sri Lanka	⊠	TJ	Tajikistan
Ø	CO		-	LR.	Liberia	Ø	TM	Turkmenistan
Ø				LS	Lesotho	×	TN	Tunisia
	CR			LT	Lithnania	Ø		Turkey
	cs	Scrbia and Montenegro	-		· · · · · ·	_	TR	
X	CU			LU	Luxembourg	\boxtimes	TT	Trinidad and Tobago
Ø	CZ		==	LV	Latvia	\boxtimes	TZ	Heirad Darrettin of Tananaia
Ø	DE	. Germany			Morocco	Ø		United Republic of Tanzania
Ø	DK		X	MLD.	Republic of Moldova	Ø	UG	Ukraine
×	DM	I Dominica			Madagascar			•
Ø	DZ	•	\boxtimes	MK	The former Yugoslav Republic of Macedonia	⊠. ⊠	US	United States of America
Ø	EC	Ecuador	\boxtimes	MN	Mongolia		UZ	
Ø	EE	Estonia	-		Malawi	Ø		Saint Vincent and the Grenadines
Ø	EG	Egypt			Mexico	⊠ S3	VN	Viet Nam
Ø	ES	Spain			Mozambique	Ø		South Africa
\boxtimes	FI	Finland				⊠		Zambia
\boxtimes	GB	United Kingdom	\equiv	NI	Nicaragua	×	.zw	Zimbabwe
\boxtimes	GD	Grenada	\boxtimes	NO	Norway			
Ø	GE Georgia							
	ck-box	reserved for designating States which	have beco	ome 1	party to the PCT after issuance of thi	s sheet		
Precautionary Designation Statement: In addition to the designations made shows the ambiguit also makes under Rule A 9(h) all								
other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that								
	my desig	nation which is not confirmed before the	expiration	n of	15 months from the priority date	is to	be reg	arded as withdrawn by the
	applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)							

orm PCT/RO/101 (second sheet) (July 2003)



Box No. VI PRIOR	RITY CLAIM					
The priority of the following earlier application(s) is hereby claimed:						
Filing date Number of earlier application		Where earlier application is:				
(day/month/year)	of earlier applications	national application: country or member of WTO	regional application: * regional Office	international application: receiving Office		
item (1) 27 November 2002	60/429,631	us				
item (2)	·		•			
item (3)				·		
item (4)						
item (5)			. ,			
Further priority claims a	are indicated in the Supplementa	il Box.		:		
The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s)(only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:						
☐ all items ☑ item ((1) item.(2)	item (3)	em (4) item (5)	other, see Supplemental Box		
* Where the earlier application is an ARIPO application indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)):						
Box No. VII INTERNATIONAL SEARCHING AUTHORITY						
Choice of International Searching Authority (ISA) (If two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):						
ISA/ US						
Request to use results of International Searching Author	earlier search; reference to ority):	that search (If an earlier so	earch has been carried out	by or requested from the		
Date (day/month/year)	Date (day/month/year) Number Country (or regional Office)					
Box No. VIII DECLARATIONS						
The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable (Check Boxes below and indicate in he right column the number of each type of Declaration) Number of declarations						
Box No. VIII (i) Declaration as to the identity of the inventor :						
Box No. VIII (ii) Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent :						
Box No. VIII (iii) Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application						
Box No. VIII (vi)	Box No. VIII (vi) Declaration of inventorship (only for the purposes of the designation of the United States of America):					
Box No. VIII (v) Declaration as to non-prejudicial disclosures or exceptions to lack of novelty:						

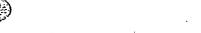
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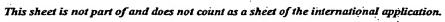
See Notes to the request form



Box No. IX CHECK LIST; LANGUAGE OF FILING					
This international application contains: (a) the following number of sheets in paper form:	This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):	Number of items			
request (including declaration sheets) : 5	fee calculation sheet 2. original separate power of attorney	: 1 .			
description (excluding sequence listing and/or	3. original general power of attorney	:			
tables related thereto) : 55	copy of general power of attorney, reference number, if any:	:			
claims : 4	5. statement of explaining lack of signature	:			
drawings : 9	6. priority document(s) identified in Box No. VI as item(s):	<u>:</u>			
Sub-Total number of sheets: 74	7. translation of international application into (language):	: .			
sequence listing : tables related thereto :	separate indications concerning deposited microorganism or other biological material	:			
(for both, actual number of sheets if filed in paper form, whether or not also filed in	sequence listing in computer readable form (indicate also type and number of carriers (diskette, CD-ROM, CD-R or other))	· :			
computer readable form; see (c) below)	(i) copy submitted for the purposes of international search und Rule 13 <i>ter</i> only (and not as part of the international applica-				
Total number of sheets : 74 (b) only in computer readable form	(ii) (only where check-box (b(i)) or (c)(i) is marked in left colun additional copies including, where applicable, the copy for purposes of international search under Rule 13ter				
(Section 801(a)(i)) (i) sequence listings (ii) tables related thereto	(iii) together with relevant statement as to the identity of the coreopies with the sequence listing part mentioned in left columns.				
c) also in computer readable form (Section 801(a)(ii)) (i) sequence listings (ii) tables related thereto	10. tables in computer readable form related to sequence listin (indicate type and number of carriers) (i) copy submitted for the purposes of international search und Section 802(b-quarter) only (and not as part of the international)	er			
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are Contained the purposes of international search under Section 802(b-quarter) :					
sequence listings tables related thereto additional copies to be indicated under (iii) together with relevant statement as to the identity of the copy or copies with the sequence listing part mentioned in left column:					
!					
Figure of the drawings which Figure 1 Language of filing of the international application: English					
Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE Next to each signature, indicate the name of the person signing and the capacity in which the person signed (if such capacity is not obvious from reading the request).					
Proy Leahy Amy Leahy)					
For receiving Office use only					
Date of actual receipt of the purported international application:	,	Drawings:			
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:					
4. Date of timely receipt of the required corrections under PCT Article 11 (2):					
5. International Searching Authority 6. Transmittal of search copy delayed until search fee is paid.					
For International Bureau use only					
Date of receipt of the record copy by the International Bureau:					

Form PCT/RO/101 (last sheet) (March 2001; reprint July 2003) See Notes to the request form.





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PCT					
FEE CALCULATION					
Annies at a courts	International application no.				
Applicant's or agent's file reference 890003-2003.WO					
110 1010 070 070 070 070 070 070 070 070	Date stamp of the receiving Office				
Applicant UNIVERSITY OF MINNESOTA	i				
CALCULATION OF PRESCRIBED FEES					
1. TRANSMITTAL FEE	\$240.00 T				
2. SEARCH FEE \$700.00 S					
International search to be carried out by <u>US</u> (If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search.)					
3. INTERNATIONAL FEE	<u> </u>				
Basic Fee					
Where item (b) of Box No. IX applies, enter Sub-Total number of sheets Where item (b) of Box No. IX does not apply, enter Total number of sheets	} ⁷⁴				
b1 first 30 sheets	6.00 Б1				
b2 44 x \$12.00 = \$522	8.00 b2				
number of sheets in excess of 30 fee per sheet					
b3 additional component (only if sequence listings and/or tables					
related thereto are filed in computer readable form under Section 801(a)(i), or both in that form and on paper, under Section 801(a(ii)):					
400 x =	b3				
fee per sheet					
Add amounts entered at b1, b2 and b3 enter total at B	\$1,004.00 B				
Designation Fees					
The international application contains <u>all</u> designations.	C 520 00 [7]				
number of designation fees amount of designation fee	\$ 520.00 D.				
payable (maximum 5)					
Add amounts entered at B and D and enter total at I	\$1,524.00 I				
(Applicants from certain States are entitled to a reduction of 75% of the international fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the sum of the amounts entered at B and D.)	j				
4. FEE FOR PRIORITY DOCUMENT (if applicable)	\$ 20.00 P				
5. TOTAL FEES PAYABLE					
Add amounts entered at T, S, I and P, and enter total in the TOTAL box					
The designation fees are not paid at this time					
MODE OF PAYMENT					
Authorization to charge postal money order cash coupons deposit account (see below)					
cheque bank draft revenue stamps other (specify):					
AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT (This mode of payment may not be available at all receiving Offices) Receiving Office: RO/US					
Authorization to charge the total fees indicated above.	Deposit Account No.: 50-0320				
(This check-box may be marked only if the conditions for deposit accounts of the Date: 25 November 2003					
receiving Office so permit) Authorization to charge any deficiency of overpayment in the total fees indicated above.	r credit any				
overpayment in the total fees indicated above. Name: Amy Leahy Authorization to charge the fee for priority document.					
	Signature: 1-my along				